BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

DIVISION: BYATARAYANAPURA

SUB DIVISION: VIDYARANYAAPURA

Name of Work: *Estimate for Improvements to Roads and Drains at Kallappa Layout, Gopalappa Layout, Doddabommasnadra 4th Block in Ward No. 10, (Doddabommasandra), Vidyaranyapura Sub Division.*

JOB CODE: 010-20-000079

P-3726 Zonal Public Works

Estimated Cost: Rs. 25.00 Lakhs

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- Improvements to Roads and Drains at Kallappa Layout, Gopalappa Layout, Doddabommasandra 4th Block in Ward No. 10 (Doddabommasandra), Vidyaranyapura Sub Division.

								Estimation Cost.Rs		2500000.00
Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
1	KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1)									
	Drain Desilt									
	Gopalappa layout to Kallappa layout									
		Cum	2	252.00	0.50	0.60	151.20			
	Basic rate							130.00		
	Area weightage 6%							7.80		
	5Km lead & Lift= 57+(2*1.28*5)							69.80		
	Total						151.20	207.60		31389.12
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.27-I.No.5.33)									
	Cover Slab									
	Gopalappa layout to Kallappa layout									
		Sqm	2	252.00	0.90		453.60			
					Sub Total		453.60			
	Consider 25% Missing or Damaged Slab						113.40			
	Basic rate							105.00		
	Area weightage 6%							6.3		
	Total						340.20	111.30		37864.26
3	KSRB 4-1.3 : Providing and laying in position plain cement concrete of Mix 1:4:8 with OPC @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2									
	For Road									
	Kalappa layout									
	6thI Cross	Cum	1	42.00	7.50	0.15	47.25			
		Cum	1	32.00	8.00	0.15	38.40			
	6thJ Cross	Cum	1	34.00	6.00	0.15	30.60			
	Basic rate							5102.00		
	Area weightage 6%							306.12		
	Total						116.25	5408.12		628693.95
4	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)									
	Drain cover slab									
	Consider 25% Missing or Damaged Slab	Sqm					113.40			
	Data rate							2337.00		
	Total						113.40	2337.00		265015.80

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
5	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 10km lead= (I No-19.14,P No-143)								
	Asphalt Raod								
	Gopalappa layout to Kallappa layout								
		Cum	1	5.00	1.20	0.23	1.38		
		Cum	1	6.00	1.50	0.23	2.07		
		Cum	1	10.00	1.10	0.23	2.53		
		Cum	1	15.00	1.40	0.23	4.83		
	For CC Road								
	Kalappa layout								
	6thI Cross	Cum	1	42.00	7.50	0.10	31.50		
		Cum	1	32.00	8.00	0.10	25.60		
	6thJ Cross	Cum	1	34.00	6.00	0.10	20.40		
	Basic rate							41.00	
	Area weightage 6%							2.46	
	5Km lead= (2*1.28*5)							12.80	
	Total						88.31	56.26	4968.32
6	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18)								
	Road cutting portion								
	Gopalappa layout to Kallappa layout								
		Cum	1	5.00	1.20	0.23	1.38		
		Cum	1	6.00	1.50	0.23	2.07		
		Cum	1	10.00	1.10	0.23	2.53		
		Cum	1	15.00	1.40	0.23	4.83		
	Basic rate							1888.00	
	Area weightage 6%							113.28	
	Total						10.81	2001.28	21633.84
7	KSRRB 500-1.Cleaning the existing WBM Road surface including removing of binding materials and other foreign matter with wire brushes and small picks sweeping with brooms or soft brushes and finally dusting with old gunny bags and bar or compressed air to receive bituminous treatment including cost of all materials, labhour, HOM of machineries complet as per specifications.(P.No.158,I.No.21.1)								
	Road cutting portion								
	Gopalappa layout to Kallappa layout								
		Sqm	1	5.00	1.20		6.00		
		Sqm	1	6.00	1.50		9.00		
		Sqm	1	10.00	1.10		11.00		
		Sqm	1	15.00	1.40		21.00		
					Sub Total		47.00		
	For 15% Profile Correction	Sqm		1134*15%			170.10		

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
	Basic rate							21.00	-
	Area weightage 6%							1.26	
	Total						217.10	22.26	4832.65
8	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6)								
	Gopalappa layout to Kallappa layout								
		Sqm	1	5.00	1.20		6.00		
		Sqm	1	6.00	1.50		9.00		
		Sqm	1	10.00	1.10		11.00		
		Sqm	1	15.00	1.40		21.00		
				Sub Total			47.00		
	For 15% Profile Correction	Sqm	1134*15%				170.10		-
	Basic rate							27.00	
	Area weightage 6%							1.62	
	Total						217.10	28.62	6213.40
9	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30-grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6)								
	Gopalappa layout to Kallappa layout								
		Cum	1	5.00	1.20	0.05	0.30		
		Cum	1	6.00	1.50	0.05	0.45		
		Cum	1	10.00	1.10	0.05	0.55		
		Cum	1	15.00	1.40	0.05	1.05		-
					Sub Total		2.35		
	For 15% Profile Correction	Sqm	(1134*15%)*0.05				8.51		
	Basic rate							6224.00	
	Area weightage 6%							373.44	
	Total						10.86	6597.44	71615.21
10	KSRRB 500-2.Cleaning the existing black topped surface with brooms,soft brushes and finally dusting with old gunny bags and/or compressed air to receive bituminous treatment including cost of all materials,labhour, HOM of machineries complete as per specifications.(P.No.158,I.No.21.12).								
	Gopalappa layout to Kallappa layout								
		Sqm	1	252.00	4.50		1134.00		
	Basic rate							5.00	
	Area weightage 6%							0.3	
	Total						1134.00	5.30	6010.20

Sl No	Description of work		Mesurement				Qty	Rate	Amount
		Unit	No.	L	B	D			
11	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications (P.No-161,I No-21.7)								
	Gopalappa layout to Kallappa layout								
		Sqm	1	252.00	4.50		1134.00		
	Basic rate							12.00	
	Area weightage 6%							0.72	
	Total						1134.00	12.72	14424.48
12	KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 507 of MORTH V revision using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 5.4% VG-30 Bitumen(P.No-162,I No-21.22.6)								
	Gopalappa layout to Kallappa layout								
		Cum	1	252.00	4.50	0.04	45.36		
	Basic rate							7315.00	
	Area weightage 6%							438.90	
	Total						45.36	7753.90	351716.90
13	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803(P.No-182,I No-24.15)								
	Gopalappa layout to Kallappa layout								
		Sqm	2	252.00	0.10		50.40		
	Basic rate							429.00	
	Area weightage 6%							25.74	
	Total						50.40	454.74	22918.90
14	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202(P.No.140- I.No.18.47) & Pg No.136, Item No.17.4,17.1								
	Kalappa layout								
	6thI Cross	Cum	1	42.00	7.50	0.20	63.00		
		Cum	1	32.00	8.00	0.20	51.20		
	6thJ Cross	Cum	1	34.00	6.00	0.20	40.80		
	Basic rate							899.00	
	Area weightage 6%							53.94	
	5Km lead & Lift= 57+(2*1.28*5)							69.80	
	Total						155.00	1022.74	158524.70

Sl No	Description of work	Unit	Mesurement No.	L	B	D	Qty	Rate	Amount
5	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, using a grade concrete M30 over a prepared base with OPC coarse aggregate @ 0.69cum fine aggregate @ 0.46cum,coarse and fine aggregate confirming to IS:383-2016,with superplastisiser @3lts confirming to IS9103-2008mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine,and curing including cost of all materials,labour,hire chargedof machines,all lead and lift charges etc., complete as per specifications. - do with OPC at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum Pg No.176Item No.22.6.1								
	Kalappa layout								
	6thI Cross	Cum	1	42.00	7.50	0.15	47.25		
		Cum	1	32.00	8.00	0.15	38.40		
	6thJ Cross	Cum	1	34.00	6.00	0.15	30.60		
	Basic rate							4916.00	
	Area weightage 6%							294.96	
	Total						116.25	5210.96	605774.10
								Grand Total	2231595.83
								GST Charges (12% of estimated cost)	267791.50
								Miscellenious and rounding	612.67
								Total Amount	2500000.00
								RUPEES NINETY NINE LAKHS ONLY	

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019,Issue rates and Data Rates.

Assistant Engineer
Vidhyaranyapuram Sub Division
BBMP

Assistant Executive Engineer
Vidhyaranyapuram Sub Division
BBMP

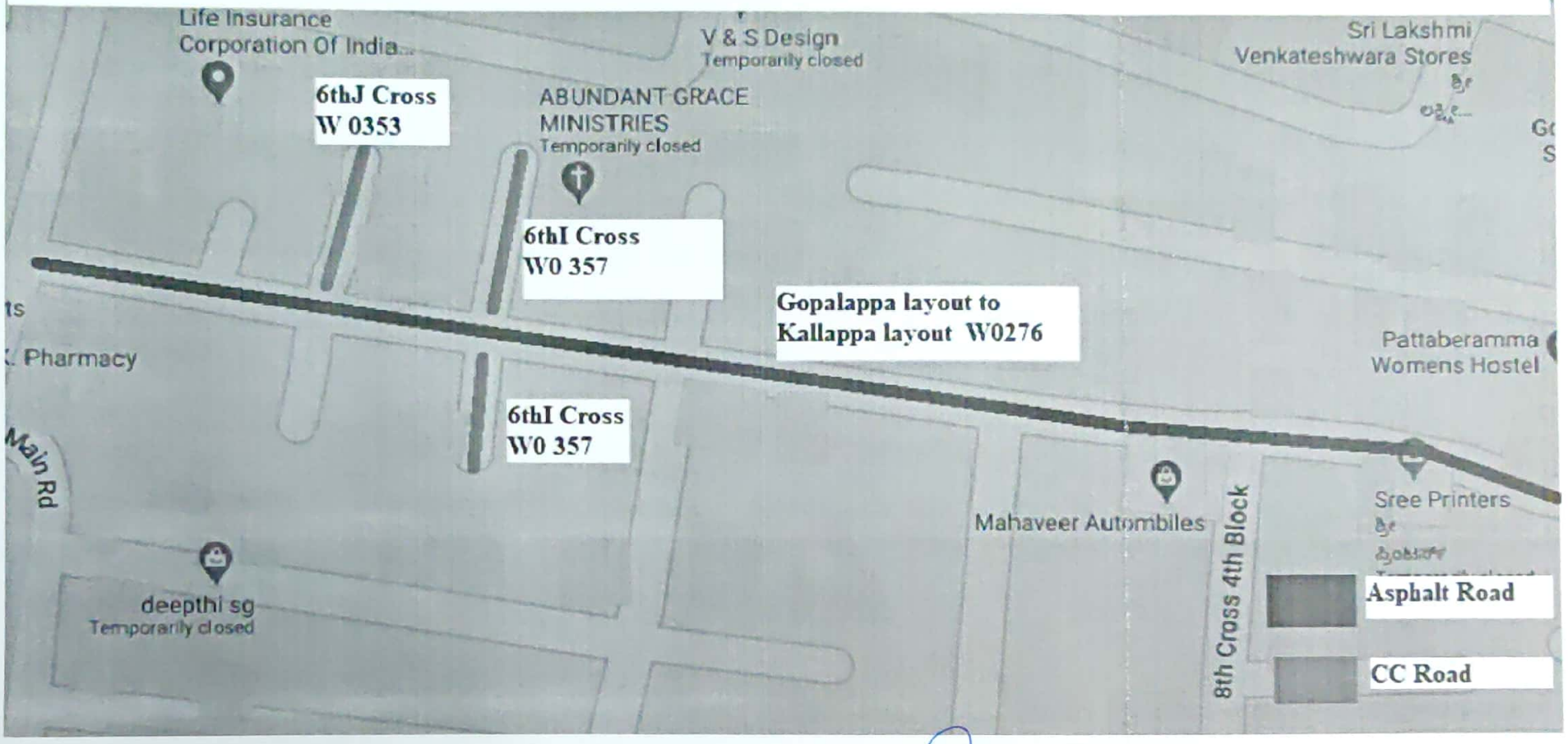
Executive Engineer
Vidhyaranyapuram Division
BBMP

Administrative Approval
Accorded For Rs 25.00 Lakhs only
Head of A/C P 3726
CER NO :168 Dt:27.03.2020
TA CE (YNK)

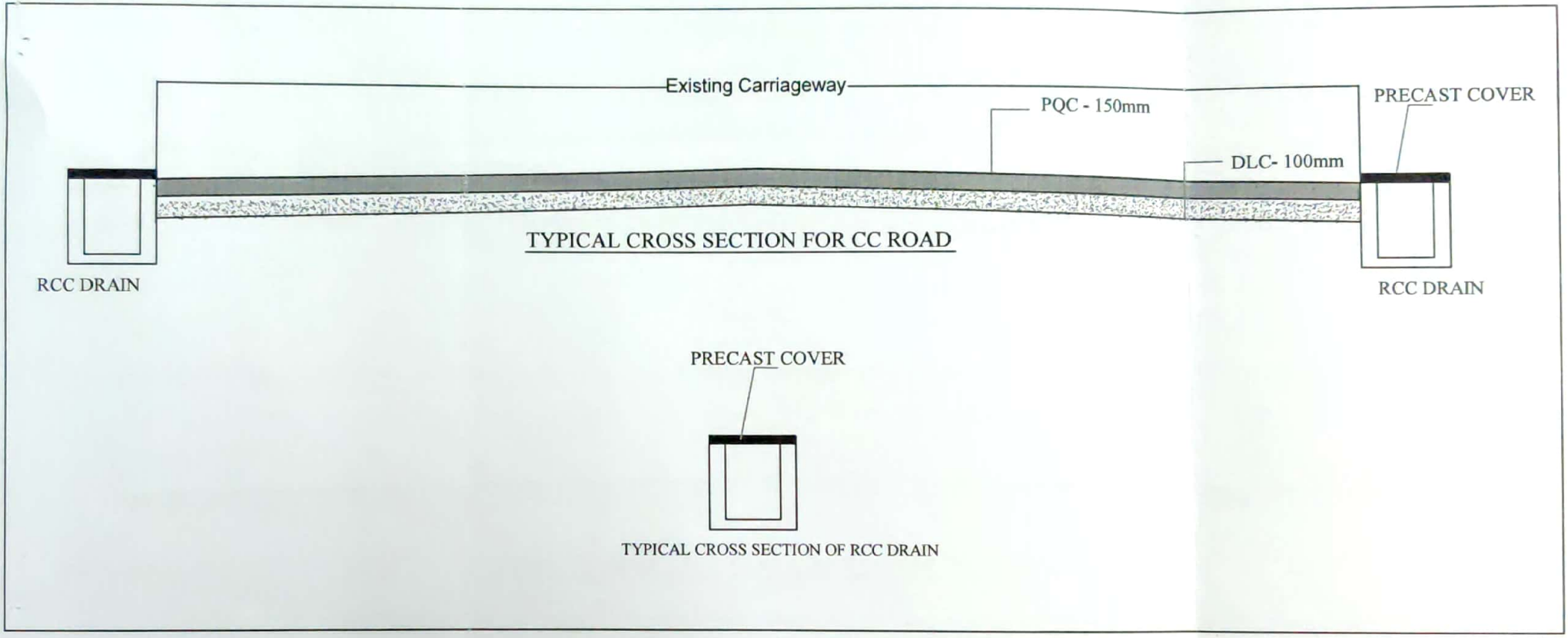
Technical Sanction
Accorded For Rs 25.00 Lakhs only
Head of A/C P 3726
CER NO :332 Dt:27.03.2020
TA CE (YNK)

152 - BYATARAYANAPURA AC
WARD NAME : 10 - DODDA BOMMASANDRA

Improvements to Roads and Drains at Kallappa Layout, Gopalappa Layout, Doddabommasandra 4th Block in Ward No. 10 (Doddabommasandra), Vidyaranyapura Sub Division.



Suvetha NL
AE W10



Sunitha. N K
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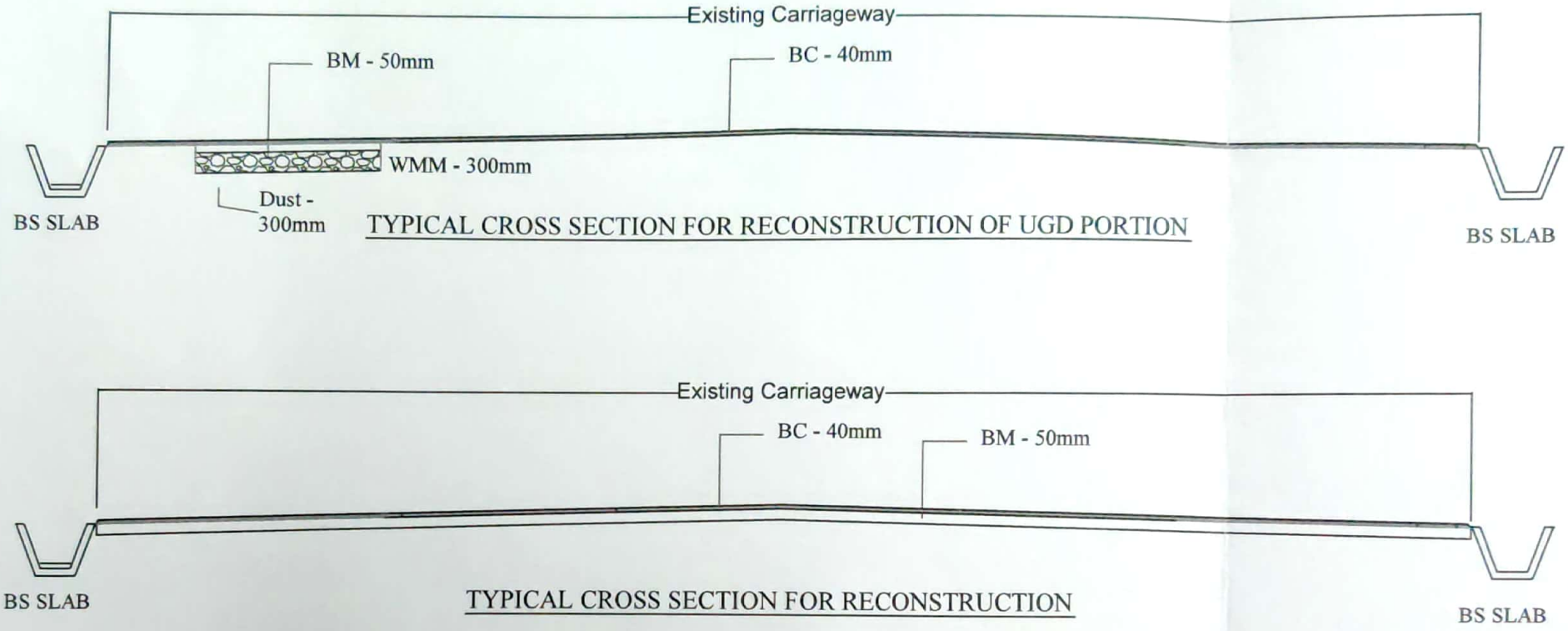

TYPICAL CROSS SECTION FOR RECONSTRUCTION OF UGD PORTION

TYPICAL CROSS SECTION FOR RECONSTRUCTION

Suveta .N.L
AE W10